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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,852	01/26/2004	Michio Tanimoto	2004-2123.ORI	9801
23165 7590 08/01/2007 ROBERT J JACOBSON PA 650 BRIMHALL STREET SOUTH ST PAUL, MN 551161511			EXAMINER CHO, JENNIFER Y	
			ART UNIT	PAPER NUMBER
			1621	
			MAIL DATE	DELIVERY MODE
			08/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,852	Applicant(s) TANIMOTO ET AL.	
	Examiner Jennifer Y. Cho	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Receipt is acknowledged of the Response filed 6/2/2007.

The original claims 2-4 are pending in this application. Claim 1 has been cancelled.

Claim Rejections – 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Kawajiri et al. (US 5,719,318), in view of Brockwell et al. (US 6,492,548). See previous office action.

Applicant's arguments filed 6/2/2007 have been fully considered but they are not persuasive.

The Examiner acknowledges Applicant's argument that Kawajiri et al. and Brockwell et al. fail to disclose or suggest using a catalyst prepared via Applicant's catalyst precursor.

The Examiner acknowledges that Kawajiri et al. and Brockwell et al. are silent as to the particular catalyst precursor used for the production of acrylic acid. Nevertheless,

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Kawajiri et al. teaches all the components of the catalyst. The primary reference, Kawajiri et al. goes on to say that "the catalyst particles used in the present invention can be produced by any of various processes ordinarily used in production of such catalyst particles...the starting materials used in production of the catalyst particles are not particularly restricted..." (column 2, lines 56-58). This could include Applicant's catalyst precursor.

The Examiner acknowledges Applicant's argument that the art's processes provide results inferior to those of the claimed process with regard to catalyst durability and acrylic acid yield.

The primary reference, Kawajiri et al. teaches an acrylic acid yield of over 94.0% after a reaction time of 8,000 hours (column 7, table 2, examples 1 and 2). This is a 6% higher yield than Applicant's example 6, from Table 1, in which the acrylic acid yield is 88% after 100 hours. Furthermore, the comparisons from Table 1, abstracted from the specification, are not convincing since there is no specific side-by-side comparison of the different components from the synthesis of the catalyst or catalyst precursor.

One of ordinary skill in the art desiring to produce acrylic acid, would be motivated to utilize the teachings of Brockwell et al., to obtain the acrylic acid of Kawajiri et al., in high yield. Additionally, one of ordinary skill in the art would be motivated to make the acrylic acid with a composite-oxide catalyst, known to be useful to suppress hot spots or heat build-up, in order to increase the yield of acrylic acid and to continue the reaction of acrylic acid over a longer period of time.

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Therefore it would be prima facie obvious to one of ordinary skill in the art at the time of the invention, to use the two step process of Brockwell et al. in the oxidation of propylene to form acrylic acid, for the single step process of Kawajiri et al. to oxidize acrolein to form acrylic acid. The expected result would be the efficient oxidation of propylene to first acrolein and then to acrylic acid, as the final product, in high yield.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

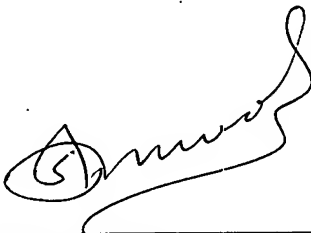
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Y. Cho whose telephone number is (571) 272 6246. The examiner can normally be reached on 9 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on (571) 272 0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jennifer Cho
Patent Examiner
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for 
Yvonne Eyler
Supervisory Patent Examiner
Technology Center 1600